

ABSTRACT

Under the assumption that in-cylinder intake air quantities which are imbibed into a combustion chamber are constant, and on the basis of the relationship that the product between a command final fuel injection quantity F_i ($F_i(k-M)$) and a detection air/fuel ratio $abyfs(k)$ becomes equal to the product between a target command basic fuel injection quantity F_{baset} for making the actual air/fuel ratio of an engine a target air/fuel ratio $abyfr(k)$ and a target air/fuel ratio $abyfr(k)$, this air/fuel ratio control apparatus evaluates the quantity F_{baset} ($= (abyfs(k)/abyfr(k)) F_i(k-M)$), and it divides the quantity F_{baset} by an uncorrected command basic fuel injection quantity $F_{baseb}(k)$, thereby to evaluate a basic-fuel-injection-quantity correction coefficient KF ($= F_{baset}/F_{baseb}(k)$). The uncorrected command basic fuel injection quantity F_{baseb} at the next time is multiplied by coefficient KF , thereby to successively correct the next uncorrected command basic fuel injection quantity F_{baseb} .